

### Abstract

A system and method for inferring informational goals and preferred level of details in answers in response to questions posed to computer-based information retrieval or question-answering systems is provided. The system includes a query subsystem that can receive an input query and extrinsic data associated with the query and which can output an answer to the query, and/or rephrased queries or sample queries. The query subsystem accesses an inference model to retrieve conditional probabilities that certain informational goals are present. One application of the system includes determining a user's likely informational goals and then accessing a knowledge data store to retrieve responsive information. The system includes a natural language processor that parses queries into observable linguistic features and embedded semantic components that can be employed to retrieve the conditional probabilities from the inference model. The inference model is built by employing supervised learning and statistical analysis on a set of queries suitable to be presented to a question-answering system. Such a set of queries can be manipulated to produce different inference models based on demographic and/or localized linguistic data.